

# INTERNATIONAL SEARCH REPORT

International No  
PCT/US2004/024922

A. CLASSIFICATION OF SUBJECT MATTER  
IPC 7 C07F9/6512 C07F9/653 A61K31/675

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 C07F A61K

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, CHEM ABS Data, WPI Data, PAJ

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 4 808 716 A (HOLY ANTONIN ET AL) 28 February 1989 (1989-02-28) the whole document	1-24
X	US 2003/004345 A1 (CASARA PATRICK ET AL) 2 January 2003 (2003-01-02) the whole document	1-24
X	EP 0 269 947 A (BRISTOL MYERS CO) 8 June 1988 (1988-06-08) example 11; compound 40	1-24
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☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

### \* Special categories of cited documents :

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier document but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

"&" document member of the same patent family

Date of the actual completion of the international search

20 January 2005

Date of mailing of the international search report

30.03.05

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2  
NL - 2280 HV Rijswijk  
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,  
Fax: (+31-70) 340-3016

Authorized officer

Klein, D

# INTERNATIONAL SEARCH REPORT

International Application No  
PCT/US2004/024922

## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	KIM, CHOUNG UN ET AL: "Synthesis and antiviral activity of (S)-9-[4-hydroxy-3-(phosphonomethoxy)butyl]guanine" JOURNAL OF MEDICINAL CHEMISTRY, 33(6), 1797-800 CODEN: JMCMAR; ISSN: 0022-2623, 1990, XP001204580 the whole document -----	1-24
P,X	WO 03/087298 A (BABU YARLAGADDA S ; WU MINWAN (US); CHAND POORAN (US); EL-KATTAN YAHYA) 23 October 2003 (2003-10-23) the whole document -----	1-24
P,X	US 2004/014722 A1 (BABU YARLAGADDA S ET AL) 22 January 2004 (2004-01-22) the whole document -----	1-24

# INTERNATIONAL SEARCH REPORT

Inter. application No.  
PCT/US2004/024922

## Box II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:  
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☐ Claims Nos.:  
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
3. ☐ Claims Nos.:  
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

## Box III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☒ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

1 ( part ) - 24 ( part )

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1(part)-24(part)

Compounds bearing one PY1(Y2H)(Y2H) terminal group (Formula of claim 1 or 11 wherein M2=O and Rx = H).

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2. claims: 1(part)-24(part)

Compounds bearing a terminal group other than one -PY1(Y2H)(Y2H) (Formula of claim 1 or 11 wherein Rx is different than H).

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# INTERNATIONAL SEARCH REPORT

Information on patent family members

International Publication No  
PCT/US2004/024922

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
US 4808716	A	28-02-1989	CS 263951 B1	12-05-1989
			AT 78259 T	15-08-1992
			AU 580151 B2	05-01-1989
			AU 5632886 A	30-10-1986
			CA 1295614 C	11-02-1992
			DE 3686002 D1	20-08-1992
			DE 3686002 T2	17-12-1992
			DK 167886 A	26-10-1986
			EG 18079 A	30-06-1992
			EP 0206459 A2	30-12-1986
			HK 213296 A	06-12-1996
			JP 1749290 C	08-04-1993
			JP 4033798 B	04-06-1992
			JP 61275289 A	05-12-1986
			NO 861621 A ,B,	27-10-1986
			NZ 215925 A	27-01-1989
US 2003004345	A1	02-01-2003	EP 0618214 A1	05-10-1994
			US 2004068111 A1	08-04-2004
			AU 681395 B2	28-08-1997
			AU 6516294 A	24-10-1994
			CA 2159451 A1	13-10-1994
			CN 1120338 A ,C	10-04-1996
			CN 1229084 A	22-09-1999
			DE 69403910 T2	29-01-1998
			EP 0701562 A1	20-03-1996
			ES 2105684 T3	16-10-1997
			FI 954615 A	28-09-1995
			GR 3024788 T3	30-01-1998
			HU 72459 A2	29-04-1996
			JP 8508481 T	10-09-1996
			NO 953878 A	01-12-1995
			NZ 263904 A	26-11-1996
			WO 9422882 A1	13-10-1994
			US 5922696 A	13-07-1999
			US 5817647 A	06-10-1998
			ZA 9402092 A	24-10-1994
EP 0269947	A	08-06-1988	AT 78485 T	15-08-1992
			AU 613592 B2	08-08-1991
			AU 8125087 A	19-05-1988
			CA 1339780 C	24-03-1998
			DE 3780581 D1	27-08-1992
			DE 3780581 T3	05-06-1997
			DK 604087 A	19-05-1988
			EG 19346 A	31-01-1995
			EP 0269947 A1	08-06-1988
			ES 2033774 T3	01-04-1993
			GR 3005256 T3	24-05-1993
			GR 3021389 T3	31-01-1997
			IL 84477 A	08-12-1995
			JP 2593895 B2	26-03-1997
			JP 63170388 A	14-07-1988
			KR 9509195 B1	16-08-1995
			NZ 222553 A	26-07-1991
			US 5854228 A	29-12-1998
			US 5650510 A	22-07-1997
			PT 86156 A ,B	01-12-1987

# INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/US2004/024922

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
EP 0269947	A	ZA 8708607 A	17-05-1988
WO 03087298	A	23-10-2003	
		AU 2002365935 A1	27-10-2003
		CA 2466301 A1	23-10-2003
		EP 1450809 A2	01-09-2004
		WO 03087298 A2	23-10-2003
		US 2004014722 A1	22-01-2004
		US 2005033051 A1	10-02-2005
US 2004014722	A1	22-01-2004	
		AU 2002365935 A1	27-10-2003
		CA 2466301 A1	23-10-2003
		EP 1450809 A2	01-09-2004
		US 2005033051 A1	10-02-2005
		WO 03087298 A2	23-10-2003